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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/763,127
Filing Date: January 22, 2004
Appellant(s): WOODCOCK ET AL.

David C. Jenkins
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 1, 2010, appealing from the Office action mailed May 7, 2010.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

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(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,110,214	Klimasauskas	8-2000
2003/0093347	Gray	5-2003

(9) Grounds of Rejection

The following grounds of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-3, & 7-10** are rejected under 35 U.S.C. 102(b) as being anticipated by Klimasauskas (U.S. 6,110,214).

As per claim 1, Klimasauskas teaches a method of characterizing a number of potential financial benefits to a facility, each potential financial benefit resulting from the potential performance of one of a number of groups of possible activities on the facility (See column 21, lines 25-40, which discusses using the analyzer for business time series, financial modeling, etc.), the method comprising:

determining a number of goals, the achievement or partial achievement of which would affect a financial status of the facility (See column 21, lines 15-24, which discusses changing optimization goals to suit a particular process of interest);

identifying for each goal a corresponding groups of activities, each identified activity affecting in some fashion achievement of the goal (See column 18, lines 32-43, which discusses defining an objective function for each maintenance activity); and

for each group of activities, determining a probability distribution on net present saving that corresponds with implementation of the group of activities (See column 20, lines 45-56, which discusses how the analyzer determines the net savings achieved).

As per claim 2, Klimasauskas teaches wherein said determining a probability distribution on net present savings that corresponds with implementation of the group of activities comprises:

determining a baseline of activity with regard to the facility (See column 9, line 52, through column 10, line 11, which discusses selecting candidate transformations for derived variables);

identifying a number of operational parameters related to the facility that have an effect on the financial status of the facility, each operational parameter having an uncertainty (See column 14, lines 1-4, and claim 1, which discusses input parameters for one or more activities);

for each operational parameter, characterizing the operational parameter based upon an assumption of the baseline activity, the characterized operational parameter having an uncertainty (See claim 1, which discusses how the primary analyzer applies input parameters and derived variables to generate outputs corresponding to an activity);

for each operational parameter, characterizing the operational parameter based upon an assumption of implementation of the group of activities, the characterized operational parameter having an uncertainty (See claim 1, which discusses how the primary analyzer applies input parameters and derived variables to generate outputs corresponding to an activity);

performing a plurality of probabilistic simulation sampling trials on the operational parameters that were characterized based upon the assumption of baseline activity and on the operational parameters that were characterized based upon the assumption of implementation of the group of activities (See column 19, lines 15-38, which discusses optimizing the model using manipulated variables; and, how other techniques such as Monte Carlo may be implemented);

determining a net present savings amount for each trial (See column 20, lines 45-56, which discusses how the analyzer determines the net savings achieved); and

compiling the net present savings amounts from all of the trials corresponding with the group of activities to form the probability distribution on net present savings that corresponds with implementation of the group of activities (See column 20, line 45, through column 21, line 6, which discusses net savings within the context of determining potential modifications to process variables that improve current performance).

As per claim 3, Klimasauskas teaches wherein said performing a plurality of probabilistic simulation sampling trials includes performing a plurality of Monte Carlo trials (See column 19, lines 15-38, which discusses implementing other techniques such as Monte Carlo).

As per claim 7, Klimasauskas teaches wherein at least one of the operational parameters with its uncertainty is also known to vary with time (See abstract and column 19, lines 1-7, which discusses representing time-varying effects of maintenance events).

As per claim 8, Klimasauskas teaches wherein said at least one of the operational parameters is an equipment failure rate that is known to vary with time (See column 1, lines 40-50, and column 3, lines 20-27, which discusses equipment failure that could affect the integrity of the plant, and maintenance data collected as a result of system failure/degradation).

As per claim 9, Klimasauskas teaches wherein said identifying for each goal a corresponding group of activities includes identifying for each goal a set of activities which together comprise a strategy for achieving the corresponding goal (See column 21, lines 15-24, which discusses changing optimization goals to suit a particular process of interest).

As per claim 10, Klimasauskas teaches wherein the activities of at least one of the sets of activities together have a synergy (See column 9, line 65, through column 10, line 12, which discusses selecting specific transformations for derived variables because of the kind of relationships typically found in modeling physical processes).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 4-6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Klimasauskas (U.S. 6,110,214), in view of Gray (2003/0093347).

As per claim 4, Klimasauskas teaches utilizing the Monte Carlo technique when determining potential financial benefits. However, Klimasauskas does not expressly disclose wherein each said Monte Carlo trial comprises:

for each operational parameter that was characterized based upon the assumption of baseline activity, generating a random number, the random number determining a baseline value for the operational parameter within its uncertainty;

calculating a baseline financial effect on the financial status of the facility on the basis of the baseline operational parameter values;

discounting the baseline financial effect to achieve a present day baseline value;

for each operational parameter that was characterized based upon the assumption of implementation of the group of activities, generating a random number, the random number determining a strategy value for the operational parameter within its range of uncertainty;

calculating a strategy financial effect on the financial status of the facility on the basis of the strategy operational parameter values;

discounting the strategy financial effect to a present day strategy value; and

subtracting the present day strategy value from the present day baseline value to determine the net present saving amount for the trial.

Gray discloses calculating and assessing the economic financial risk associated with government and monetary authorities (See abstract).

Both Klimasauskas and Gray disclose methods for determining financial benefits utilizing the Monte Carlo technique. Gray teaches generating parameters to derive prices and values for a respective financial model. Furthermore, the financial model may be calibrated by taking into account relative changes (See paragraphs 373 & 374, which discusses utilizing the Monte Carlo technique to arrive at transaction values). Therefore, it would have been obvious to one or ordinary skill in the art at the time the invention was made to modify Klimasauskas to include numerous Monte Carlo trials for determining cost savings, whereby the Monte Carlo technique is calculated using an aggregation of mathematical operations, as taught by Gray in order to determine potential modifications to process variables that may improve current facility performance.

As per claim 5, Klimasauskas teaches wherein said characterizing the operational parameter based upon an assumption includes characterizing the operational parameter with a probability density function (See column 15, line 45, through column 16, line 12, which discusses a kernel density estimator).

As per claim 6, Klimasauskas teaches the probability density function of the operational parameter (See column 15, line 45, through column 16, line 12, which discusses a kernel density estimator). However, Klimasauskas does not expressly

disclose that for each operational parameter, the random numbers generated over the course of the plurality of Monte Carlo trials result in a set of values for the operational parameter that are distributed in accordance with the probability density function of the operational parameter.

Gray teaches generating parameters to derive prices and values for a respective financial model. Furthermore, the financial model may be calibrated by taking into account relative changes (See paragraphs 373 & 374, which discusses utilizing the Monte Carlo technique to arrive at transaction values). Therefore, it would have been obvious to one or ordinary skill in the art at the time the invention was made to modify Klimasauskas to include numerous Monte Carlo trials for determining cost savings, whereby parameter values are distributed utilizing a kernel density estimator, as taught by Gray in order to determine potential modifications to process variables that may improve current facility performance.

(10) Response to Argument

A. Rejection of Claims 1-3 and 9-10 Under 35 U.S.C. § 102(b) Over Klimasauskas (U.S. 6,110,214).

Claim 1

Applicant asserts that Klimasauskas does not disclose or teach characterizing for a set of maintenance activities a "probability distribution on net present savings," as expressly recited in claim 1.

The Examiner respectfully disagrees with Applicant's assertion. During patent examination, the pending claims must be "given their broadest reasonable interpretation

consistent with the specification." The Federal Circuit's en banc decision in Phillips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that the USPTO employs the "broadest reasonable interpretation" standard: The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004). Indeed, the rules of the PTO require that application claims must "conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description." 37 CFR 1.75(d)(1).

Furthermore, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). >"When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art." Brown v. 3M, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) (claim to a system for setting a computer clock to an offset time to address the Year 2000 (Y2K) problem, applicable to records with year date data in "at least one of two-digit, three-digit, or four-digit" representations, was held anticipated by a system that offsets

year dates in only two-digit formats). See also MPEP § 2131.02. The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of terminology is not required. In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

As noted in the Final Office Action Mailed on May 14, 2008, the Examiner stated that Klimasauskas is not directed solely towards optimization. The Examiner pointed Applicant to the field of invention which expressly states that the system is oriented towards modeling and optimizing (col. 1, lines 11-15). Although Klimasauskas is oriented towards suggesting optimal activities, it expressly teaches modeling with respect to the optimal activities. Therefore, Applicant's statement that Klimasauskas is directed solely toward optimization rather than probablisitic modeling with respect to a set of activities is clearly erroneous (See pg. 3 of the Appeal Brief). Additionally, the Examiner would also like to note that Applicant continually refers to claiming "probabilistic modeling" throughout his arguments for claim 1, yet that exact claim language is not identified in the body of claim.

Based on a broad and reasonable claim construction, Klimasauskas discloses net present savings within the context of implementing a group of activities (See col. 20, lines 45-56). Although this indicated passage speaks in terms of computer code, it suggests that a net savings is calculated based on a set of implemented maintenance activities. For clarification purpose, Klimasauskas also discloses that a first model or first analyzer works in conjunction with regression analyzers and fuzzy PLS analyzers to determine potential modifications to process variables in order to improve current

performance (See col. 20, line 57, through col. 21, line 6). Although Klimasauskas doesn't identify the exact terminology, the preceding passages both expressly and inherently describe to one of ordinary skill in the art that probabilistic modeling, with respect to the modification of process variables (i.e. cost), allows improved performance by accounting for the net savings of implemented activities.

Finally, the Examiner would like to note that based on a broad and reasonable interpretation of independent claim 1, the present applications simply sets financial goals, correlates those goals with an activity, and determines the net savings that corresponds with modifying the variables of each activity to achieve each respective goal. The Examiner maintains that one of ordinary skill in the art, who broadly and reasonably interpreted the present application in light of the specification, would conclude that Klimasauskas anticipates or describes each and every element of Applicant's broad claim scope.

Claim 2

Applicant asserts that Klimasauskas does not disclose characterizing each operational parameter both based upon an assumption of baseline activity and based upon an assumption of implementation of a group of activities, as expressly recited in claim 2.

The Examiner respectfully disagrees with Applicant's assertion. First, the Examiner refers Applicant to the preamble of claim 1 which expressly contemplates modeling tasks having parameters in relations to one or more activities (See pg. 11 of the Final Office Action entered on May 14, 2008). Based on a broad and reasonable

claim construction, a baseline activity and implementation of a group of activities is simply one or more activities. In other words, collecting input parameters, generating derived variables, and applying a primary analyzer to the parameters and variables to generate outputs can be conducted for one activity (i.e. baseline activity) or multiple activities (i.e. group of activities). Hence, claim 1 of Klimasauskas both expressly and inherently describe to one of ordinary skill, characterizing parameters both based on a single or baseline activity and a group of activities.

Additionally, the Examiner would like to note that Applicant's assertion of "one or more" in the alternative sense is a piecemeal analysis of the preamble of claim 1. According to case law, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Thus, Applicant attempts to restrict the disclosure of the preamble in claim 1 to the intended use of modeling maintenance tasks having one of the two alternatives, i.e. either one activity or the other, but not both. Based on a broad and reasonable claim construction, modeling a maintenance task having "more activities" clearly results in generating outputs corresponding to "said activities." The "more activities" and the "said activities" recited in claim 1 both expressly and inherently describe to one of ordinary skill a method of modeling that

characterizes parameters both based on "more activities"...a single or baseline activity and a group of activities.

Claim 3

Applicant asserts that Klimasauskas does not disclose "wherein the said performing of a plurality of probabilistic simulation sampling trials includes performing a plurality of Monte Carlo trials," as expressly recited in claim 3.

The Examiner respectfully disagrees with Applicant's assertion. As set forth above, the Examiner points Applicant to the field of invention which expressly states that the system is oriented towards modeling and optimizing (col. 1, lines 11-15). Although Klimasauskas is oriented towards suggesting optimal activities, it expressly teaches modeling with respect to the optimal activities. Additionally, Klimasauskas also discusses implementing techniques, other than Dynamic Hill Climbing, such as Monte Carlo (See col. 19, lines 15-38). Although Klimasauskas doesn't identify the exact terminology, the preceding passages both expressly and inherently describe to one of ordinary skill in the art that the Monte Carlo technique may be used to perform various modeling trials with respect to optimal activities.

Claim 9

Applicant asserts that Klimasauskas does not disclose "identifying for each goal a set of activities which together comprise a strategy for achieving the corresponding goal," as expressly recited in claim 9.

The Examiner respectfully disagrees with Applicant's assertion. Klimasauskas discusses that goals and variables may be changed to suit a particular process (See

col. 21, lines 22-24). Words of a claim must be given their plain meaning unless **>the plain meaning is inconsistent with< the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) (discussed below); Chef America, Inc. v. Lamb-Weston, Inc., 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004) (Ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, are construed to mean exactly what they say. Thus, "heating the resulting batter-coated dough to a temperature in the range of about 400 F to 850 F" required heating the dough, rather than the air inside an oven, to the specified temperature.). The plain meaning of strategy is a plan, method, process, or series of maneuvers or stratagems for obtaining a specific goal or result. Based on a broad and reasonable claim construction, a strategy is a particular process of interest. Although Klimasauskas doesn't identify the exact terminology (i.e. strategy), the preceding passage expressly and inherently describes to one of ordinary skill in the art that a particular process of interest or strategy is chosen to achieve optimization goals.

Claim 10

Applicant asserts that Klimasauskas does not disclose "wherein the activities of at least one of the sets of activities together have a synergy," as expressly recited in claim 10.

The Examiner respectfully disagrees with Applicant's assertion. Klimasauskas discusses selecting specific transformations for derived variables to arrive at a streamlined process (See col. 9, line 65, through col. 10, line 12) (See col. 9, line 65,

through col. 10, line 12). Words of a claim must be given their plain meaning unless **>the plain meaning is inconsistent with< the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) (discussed below); Chef America, Inc. v. Lamb-Weston, Inc., 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004) (Ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, are construed to mean exactly what they say. Thus, "heating the resulting batter-coated dough to a temperature in the range of about 400 F to 850 F" required heating the dough, rather than the air inside an oven, to the specified temperature.). The plain meaning of synergy is the combined action of two or more substances or agencies to achieve an effect greater than that of which each is individually capable. Although Klimasauskas doesn't identify the exact terminology (i.e. synergy), the preceding passage expressly and inherently describes to one of ordinary skill in the art that transforming more than one variable achieves an effect greater than that of which each is individually capable.

B. Rejection of Claims 4-6 Under 35 U.S.C. § 103(a) Over Klimasauskas (U.S. 6,110,214) In View of Gray (U.S. 2003/0093347).

Claim 4

Applicant asserts that neither Klimasauskas nor Gray includes any express disclosure of generating of random numbers, calculating of a baseline financial effect, discounting of a baseline financial to a present day value, calculating of a strategy financial effect, discounting of a strategy financial effect to a present day strategy value,

or subtracting of a present day strategy value from a present day baseline value to determine a net present savings amount for a trial, as expressly recited in claim 4.

The Examiner respectfully disagrees with Applicant's assertion. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Applicant asserts that the mere disclosure of the subject matter in the art does not render obvious the Monte Carlo trial technique recited in claim 4. The Examiner cited Applicant to the disclosure in Gray in order to provide support for the application of standardized Monte Carlo and/or other simulation and stress test techniques (See paragraph 373). Additionally, Gray discloses an application program capable of calculating the relative values of strategies across a combination of values, assets, contingent claims, and sectors (See paragraph 374). The recited claim limitations simply encompass utilizing the Monte Carlo technique to arrive at transaction values, in this case a net savings amount (See Klimasauskas col. 20, line 45, through col. 21, line 6). The combined teachings of the references would have suggested to those of

ordinary skill in the art a Monte Carlo trial, whereby the Monte Carlo trial is calculated using an aggregation of mathematical operations including generating random numbers, calculating a baseline financial effect, discounting a baseline financial effect to a present day value, calculating of a strategy financial effect, discounting a strategy financial effect to a present day strategy value, and subtracting a present day strategy value from a present day baseline value to determine a net present savings amount for the trial. The Examiner maintains that he has satisfied the prima facie obligation of proving obviousness and Applicant has failed to provide definitive reasons to overcome the rejection.

Additionally, Applicant asserts that the Examiner has provided a conclusory statement without an articulated reason having some rationale underpinning to support the Examiner's conclusion of obviousness. The Examiner would like to note that KSR forecloses the argument that a specific teaching, suggestion, or motivation is required to support a finding of obviousness. See the Board decision Ex parte Smith, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007)(citing KSR, 82 USPQ2s at 1396)(available at http://www.uspot.gov/web/offices/dcom/bpai/prec/fd071925.pdf). Additionally, the key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason why the claimed invention would have been obvious. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. Exemplary rationales that may support a conclusion of obviousness include:

(A) Combining prior art elements according to known methods to yield predictable results;

(B) Simple substitution of one known element for another to obtain predictable results;

(C) Use of known technique to improve similar devices (methods, or products) in the same way;

(D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;

(E) " Obvious to try " – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;

(F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;

(G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

The Examiner maintains it would be predictable to one of ordinary skill in the art to achieve potential financial benefits to a facility or entity by prompting variations or modifications to process variables (i.e. activities within in facility) in order to arrive at the Monte Carlo trial claimed in the present invention. Additionally, the Examiner notes that the prior art is replete with examples that Monte Carlo techniques are old and well known in the art. Thus, the combined teachings of the references would have

suggested to those of ordinary skill in the art that potential modifications to process variables (.i.e. calculating relative values of strategies across a combination of values, assets, contingent claims, and sectors within a Monte Carlo trial) may improve current performance. In other words it would have been obvious to one of ordinary skill in the art to implement the Monte Carlo trial recited in claim 4 to arrive at a net present savings amount for implementing groups of activities corresponding to respective financial goals.

Claim 5

Applicant asserts that Kilmasauskas does not disclose "characterizing the operational parameter with a probability density function," as expressly recited in claim 5.

The Examiner respectfully disagrees with Applicant's assertion. Applicant argues that concept of claim 5 relates to the application of classical Bayesian probability theory to generate probability distribution. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., classical Bayesian probability theory to generate probability distribution) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Klimasauskas discloses that the density estimator is capable of producing, a necessarily non-differentiable, but still useful estimate (See col. 15, lines 45, through

coll. 16, line 12). Although Applicant asserts that the density estimator and probability density function are completely separate approaches, Applicant fails to provide guidance, thus making it impossible to address the specifics of this concern. Based on a broad and reasonable claim construction, the Examiner has correlated the "probability density function" with the density estimator disclosed in Klimasauskas. Although Klimasauskas doesn't identify the exact terminology (i.e. probability density function), the preceding passage expressly and inherently describes to one of ordinary skill in the art a density estimator that produces a useful estimate for operational parameters which inherently have an associated uncertainty.

Claim 6

Applicant asserts that neither Klimasauskas nor Gray disclose the generation of random numbers that are distributed in accordance with a probability density function of an operational parameter, as summarized in claim 6.

The Examiner respectfully disagrees with Applicant's assertion. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the

test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

As set forth above, the Examiner cited Applicant to the disclosure in Gray in order to provide support for the application of standardized Monte Carlo and/or other simulation and stress test techniques (See paragraph 373). Additionally, Gray discloses an application program capable of calculating the relative values of strategies across a combination of values, assets, contingent claims, and sectors (See paragraph 374). The recited claim limitations simply encompass utilizing the Monte Carlo technique to arrive at transaction values, in this case a net savings amount (See Klimasauskas col. 20, line 45, through col. 21, line 6). Furthermore, as discussed above, Klimasauskas discloses that the density estimator is capable of producing, a necessarily non-differentiable, but still useful estimate (See col. 15, lines 45, through coll. 16, line 12). Although Klimasauskas doesn't identify the exact terminology (i.e. probability density function), the preceding passage expressly and inherently describes to one of ordinary skill in the art a density estimator that produces a useful estimate for operational parameters which inherently have an associated uncertainty. The combined teachings of the references would have suggested to those of ordinary skill in the art the generation of random numbers that results in a set of values for an operational parameter that are distributed in accordance with a probability density estimator. As noted on pg. 14 in the Final Office Action entered May 14, 2008, the Examiner finds Applicant's arguments against the references individually unpersuasive and maintains the obviousness rejection.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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